

20.

$$3y^2 + -4$$

$$21y - 4$$

$$\underline{\underline{9y^2}} - \underline{\underline{4}}$$

$$(3y-2)(3y+2)$$

$$\begin{array}{r} \cancel{6y} \\ - \cancel{6y} \\ \hline \end{array}$$

21.

$$\rightarrow 30x^2 - 12y^2 - 2xy$$

$$\rightarrow 30x^2 - 2xy - 12y^2$$

$$30x^2 - 2xy + 12y^2$$

$$(6x - 4y)(5x + 3y)$$

3-4-5

3-5-4

22.

$$\underline{6m^2} - \underline{15mn} + \underline{14nm} - 35n^2$$

$$\underline{6m^2} - mn - \underline{35n^2}$$

$$\underline{6m^2} - 50mn + 14nm$$

$$(3m + 7n)(2m - 5n)$$

$$\begin{array}{r} - 15mn \\ + 14mn \end{array}$$

$$\begin{array}{r} \times y \\ 3.4 \end{array} \qquad \begin{array}{r} y \times \\ 4.3 \end{array}$$

$$(4x-y)^2 = (4x-y)(4x-y)$$

$$\cancel{16x^2 - 8xy - y^2}$$

$$16x^2 - 8xy + y^2$$

28.

$$a^3 + a^2b + ab^2 + \underline{\underline{b^2}} + \underline{\underline{b^3}}$$

- same variables with
same exponents

$$a^3 - b^3$$

$$(a-b)(a^2+ab+b^2)$$

$$a^3 + \cancel{a^2b} + \cancel{ab^2} - \cancel{ba^2} - \cancel{ab^2} - b^3$$

$$a^3 - b^3$$

HW

P.22

38-42

42.

$$(3a+2b)^3 =$$

$$(3a+2b)(3a+2b)(3a+2b)$$

$$(3a+2b)(9a^2 + \underline{6ab} + 6ab + 4b^2)$$

$$(3a+2b)(9a^2 + 12ab + 4b^2)$$

$$27a^3 + 36a^2b + 12ab^2 + 18a^2b + 24ab^2 + 8b^3$$

$$27a^3 + 54a^2b + 36ab^2 + 8b^3$$

Binomial Theorem

38.

$$(2a-b)(2a-b) - (a+2b)(a+2b)$$

$$4a^2 - 2ab - 2ba + b^2 - (a^2 + 2ab + 2ba + 4b^2)$$

$$\underline{4a^2} - 4ab + b^2 - a^2 - 2ab - 2ba - 4b^2$$

$$3a^2 - 8ab - 3b^2$$

P.22

45-48

$$3x + 5x = 8x$$

$$x(3+5)$$

2.3.4
✓.4

2.3.4
✓
2. 12

2.3.4
f.3

$$5^3 = 5 \cdot 5 \cdot 5$$